

Hepatitis 2 vols.

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1824

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Hepatitis

W. S. Brown





An
Inaugural Dissertation

on

Hepatitis

in its Acute, and Chronic form;

by

Papia March 10th 1824

W. S. H

William S. Bowen,

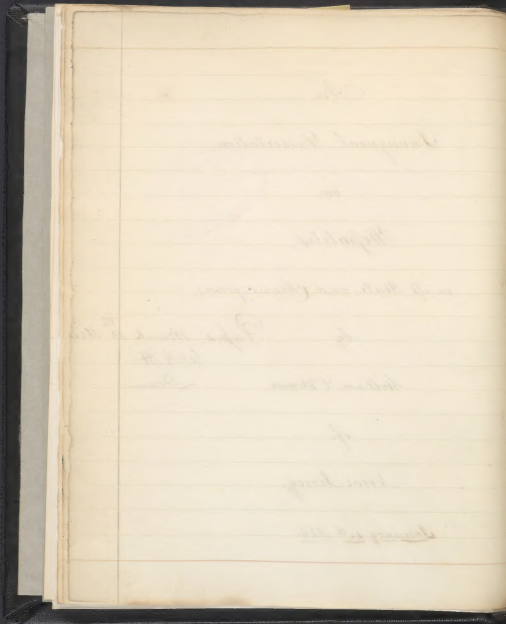
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of

New Jersey.

January 26th 1824.





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The various diseases to which the human frame is subject, call for the sympathy, forbearance, and skill of every medical man. Formed of such delicate, and such complex parts is it to be wondered that the functions of some of these should constantly be disturbed, and require remedies to restore them to their natural state.

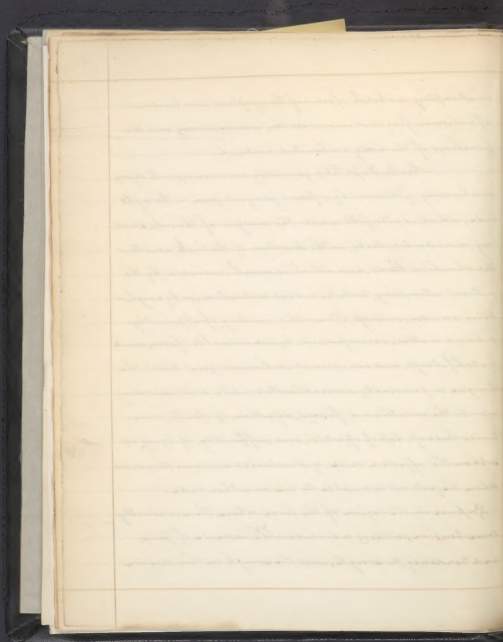
There is probably no organ which is subject to greater derangement, or whose derangements affect the system more generally than the Liver. Located as it is in almost the centre of the abdomen, and in contact with some of the most important viscera, its affections are speedily and sensibly felt; and it has been said by some authors, that morbid states of this organ are so frequent, that if it were asserted that the number of diseases which depend, more or less, on derangements of the biliary system, exceed all others taken conjointly, or should not be much in error.

Hepatitis indeed in its Acute or Chronic form, is one of the most prevalent diseases not only of warm, but also of the more temperate climates, and we may therefore be justified

in attempting a sketch of some of the symptoms, and treatment of a disease frequent in occurrence, and exercising over the functions of the body unlimited controul.

Acute Hepatitis generally commences with rigors, or shivering, followed by a fixed pungent pain in the right side, which is also felt under the margin of the ribs, shooting more particularly in the direction of the back, and to the shoulder blade, and which is much increased by the patient attempting to take a deep respiration, or by cough. There is nausea, sickness, often with a vomiting of apparently bilious matter, accompanied by considerable fever, much watchfulness, and occasional delirium, great thirst, the tongue is generally covered with a white crust, extending also to the mouth and fauces, dejection of spirits, sometimes hiccup, loss of appetite, and difficulty, of lying except on the affected side, yet instances now and then occur where the patient is unable to lie on either side.

Pressure on the region of the liver, where there is usually some tension, induces a considerable increase of pain, and tendency to cough, and the cough in this disease



is more generally dry, than moist; the bowels are generally irregular, but often slower than otherwise; the urine secreted is in small quantities, of a high colour, and often tinged with bile; the pulse is small, quick, and concentrated, sometimes exceeding 120 in a minute, and at times intermitting. The disease is attended occasionally with a jaundiced colour of the skin, arising from the bile not getting readily into the common duct, on account of the pressure of the inflamed liver on the *pori biliaris*, while the continuance of the inflammation as a necessary consequence, induces adhesion of the organ, to the contiguous parts, or considerable enlargement of particular portions of it takes place, or schirrosis is the result.

The ancients, as well as modern practitioners, have made a distinction between the symptoms which occur, when the inflammation is seated in the convex, from those which occur when it occupies the concave surface of the liver. When much difficulty of breathing, and cough accompany the pain in the region of the liver, the symptoms are said to

indicate, that the inflammation is seated in the convex, or superior part, but when the inflammation is seated in the concave, or inferior surface, which lies contiguous to the Stomach, and Duodenum, there is more sickness, and vomiting, and the pain in the region of the liver is not so violent, as in the former instance.

Some authors have been induced from the symptoms to believe, that the disorder has sometimes terminated in gangrene. In some instances says B. Saunders, the pain and inflammation, have subsided very suddenly, and have been succeeded by a low, fluttering pulse, delirium, and death; so that there has been reason to suspect that this organ may, on some occasions, though much less frequently than others, become gangrenous.

At the very commencement of the disease, the Diagnosis of Hepatitis, from inflammation of any contiguous part, is not of any very material consequence, since the speedy reduction of vascular excitement, & copious bleed^{ing}, is the main spring to be acted on in either case.



gradual inspiration, does not augment the pain of hepatic, as it does of pulmonary inflammation, while in Hepatitis, the tenderness on pressure, under the margin of the floating ribs, will be much more sensibly felt, and it may be remarked, that while the cough is at least equal with the pain in pneumonia, it generally succeeds it in Hepatitis.

From inflammation of the stomach, this disease may in most instances be distinguished, by the absence of the gastric irritability, and sensibility, which renders gastritis so dangerous, and striking a symptom. The bilious symptoms also in Hepatitis, have nothing, that would lead to suppose the existence of gastric inflammation.

From spasm of the biliary ducts occasioned by impacted calculi, hepatic inflammation may be readily distinguished, by the strong febrile excitement, and many other circumstances, especially in the beginning; but spasm will often terminate in, or rather occasion inflammation, when the treatment must be the same as in original Hepatitis.



The state of the bowels, enables us to judge of the presence of Hepatitis; for in almost all inflammatory states of the liver, and particularly of its glandular structure, the bowels are either constipated, or in a state of dysenteric irritation, while the appearance of the faces and urine, will always indicate a great derangement of the biliary secretion, than inflammation of any of the contiguous viscera.

The laborious sediment of the urine, though common to many external inflammations, is particularly conspicuous in that of the liver. Another circumstance related by Dr Johnson, is the state of the mind in hepatic inflammation, both acute and chronic, which is more disturbed than in any other species of inflammation, not excepting the brain itself. This probably results, partly from the sympathy we observe between the head, and liver, but principally from the suspension or derangement of the biliary secretions, which exert a peculiar influence on the mental functions. —



The exciting causes of Hepatitis, may be divided into internal, and external. In this country, among the internal exciting causes of hepatic inflammation, the ingurgitation of inebriating liquors, and particularly ardent spirits, has been ranked foremost, yet Dr Johnson in his treatise on derangements of the liver remarks, that the acute species of Hepatitis, is seldom induced this way, though chronic derangements especially of functions, are in a great measure occasioned by these injurious potations.

Violent exercise, with long continued exposure to the sun, will produce a fever of great violence in the beginning, with little, or no remission, and will end in a determination to some organ, most probably the liver. It is well known that a high range of atmospheric temperature, acts as a strong stimulus, on the hepatic system, through the medium of the skin, deranging its functions, and thereby predisposing the organ to inflammation.



Partial applications of cold and wet, when the body is overheated, or much fatigued by violent, or unaccustomed exercise, will be found in five cases, out of six, to be the exciting causes of Acute Hepatitis, excepting of course those instances where the disease is brought on by blows, or external violence.

Johnson in his excellent treatise on Tropical Diseases, further remarks, That all the sailors who were seized with bilious fever in Bombay harbour, appeared to labour under some hepatic derangement, which seemed to be communicated to the brain, causing pain under the frontal bone.

In miasmatic fevers the congestions of the head and portal circle, are the consequences of impaired energy of the brain, and nervous system. The same congestions take place in fevers of hot climates, partly from the same cause, but principally in the following manner. The extreme vessels on the surface of the liver, and by sympathy the veno portarum of the liver, having been excited



into inordinate action, during the intense heat of the day, are suddenly struck torpid by the raw, damp, chilling land winds; the consequence of which is, that inspiration, and biliary secretion are checked, the blood determined inwards, is impeded in its passage through the liver, and an accumulation through the portal circle ensues, which is immediately communicated to the brain.

During this period, the bile stagnating in the biliary ducts becomes viscid, and on the recurrence of a bilious secretion from Emetics, or other medicines determining the blood to the surface, often so obstructs the natural passage into the intestines, that regurgitation into the circulation takes place, and tinges the skin yellow. A great deal moreover is forced up through the stomach, in a viscid, and vitiated state, tending to keep up the gastric irritability, and sometimes to destroy the patient altogether.

This view explains why, in all visceral disorders, and more especially in disorders of the Liver,



The patients are generally seized at night, and why a nocturnal exacerbation ever afterwards takes place.

The inhabitants of warm climates, have ever been remarked as being more disposed to Hepatic complaints, than those of colder latitudes. Darwin explains it in the following manner.

Though all excesses, he remarks, of increase, and decrease of stimulus should be avoided, yet a constant variation of stimulus, seems to prolong the excitability of the system. Thus those who are uniformly habituated to much heat, as in warm parts, in winter months, loose their irritability, and become feeble like hot-house plants; but by frequent exposure to cold air, the sensorial power is accumulated, and they become stronger. Hence it may be deduced, that the variations of the cold, and heat of the temperate zones, contribute to strengthen the inhabitants, who are much more active, and vigorous, than those of much warmer, or much colder climates.



From the symptoms which have been detailed, and the rapidity with which Acute Hepatitis runs its course, it is manifest, that the earliest recourse must be had to the depletion remedies; fifteen, or twenty cups, twice or thrice repeated, should be applied over the region of the liver, and the bowels should be opened by active cathartics. Should the pain increase, and the inflammation appear to be extending over the abdomen, venesection, should be used according to the strength of the patient, the cups, and purges should be repeated, and blisters applied to the side, as no time is to be lost in checking the violent, acute stage of the disease.

Where Cupping is objected to by the patient, leeches may be employed, encouraging the bleeding by warm fomentations, and should no material relief be obtained, general bleeding, should then be resorted to, to the extent of twenty, thirty, or even forty ounces of blood, drawn from a large orifice, in order to suspend the morbid increase of circulation, by inducing fainting if possible.



After cups, or general bleeding have been promised,
the following cathartic has been recommended as one
which has proved very successful.

℞. Hyd: Sulmuriat..... ℥xii

℞. Colocyath: Comp..... grxxx

To open Castor..... grx

To be made in nine pills Three of which are to be taken
every hour.

To promote the operation of this medicine, four bottles
of each of the following mixture should be taken at the same
time.

℞. Infus: Sennae..... ℥ss

Tart: potass..... ʒss

Manna..... ʒss

Tinct: Jalap

Tinct: castor ʒss

Calomel however either alone, or combined with Jalap,
and repeated for several successive days, will prove quite
as good a cathartic probably, as any which can be used.

When taken alone it should be followed in an hour, by an
ounce of Castor oil, or Tarts.



In the more violent cases Blisters should be applied immediately over the Liver, these should be dressed with the Ung. Hydrag. Camphoratum, and every means should be immediately used to prevent this viscus from running into a state of suppuration.

In all Hepatic complaints, in order to ensure success in practice, the first point is to understand accurately the state of the disease, and this can only be learnt by a careful examination of the secretions, that pass by the stomach, and intestines. This is a point, which W. Swithorne remarks has been seldom attended to by practitioners, but is of the first importance if properly considered. In all cases where the hepatic functions are slow, or impeded, the contents both of the stomach and bowels, acquire a vitiated state, in the former there is a faulty gastric secretion mistaken^{for} bile which it is not; in the latter there is a heavy, adhesive, glairy, and vitiated mucus, which lines the intestines, of a most tenacious consistence and which prevents the regular action of these organs, ^{and} the formation of chyle in its proper state, and quantity, from the aliment



received. These facts should have a material influence in directing, a just and successful mode of treatment; they are like beacons to the mariner, and point out a safe steering, and fortunate passage through the dangers of hepatic disease; because if attended to, they will enable the practitioner to form an accurate prognosis of their progress, and termination.

When the treatment detailed has been successfully practised, and vascular excitement reduced to a certain degree, we must endeavour to restore the natural, and healthy condition of this organ as the sweet means of guarding against future lesions, either of function, or structure in this important viscus. To accomplish this end, the remedies which are calculated to restore the natural state of this organ, should not be given until the inflammatory action has been reduced, and the liver assumes something of a natural, healthy condition. Should the stomach and bowels be in a state of morbid instability, Calomel taken in, two, three, or four grain doses, mixed with a quantity of a grain of Gum, or the pulvis Antimonis, will prove very beneficial.



When we perceive a brassy taste in the mouth, or a spongy redness of the gums, the medicine should be discontinued, or given in smaller quantities, every night, or every second night, and intermitted occasionally, with a mild purgative to prevent severe ptyalism.

This brings us to the second form, or that species in which the disease is of long standing, and where more or less structural derangement is induced.

Mr Pearson in his elements of surgery remarks, that a legitimate inflammation, is accompanied with a painful sensibility of the nerves, and an augmented velocity, and strength of contraction, in the arteries of the part affected.

The term of Chronic inflammation, should therefore be only used, as Mr Pearson remarks, when the symptoms, or inflammation are less violent than ordinary, and when the disease gradually increases in extent, and intensity, and when there is a diminution of sensible action.



But there is also a considerable variety, in the susceptibility, of different parts to assume this form of inflammation; nor does this disease, always proceed with equal violence, and rapidity. But it is not always necessary to assign as causes of these deviations, distinct, or opposite modes of action in the morbid parts; for an attention to the previous habits of the patient, and to the seat of the disease, will generally enable us to account for this want of uniformity.

Chronic Hepatitis is much the most common form of the disease in this country, and from the insidious manner in which it makes its approach, and from the diversity of symptoms with which it is accompanied, often induces both the patient, and the practitioner to suppose, that some other viscera is the seat of the disease.

Mr. Farthorne supposes that when it occurs in tropical climates, it is a consequence of Acute Hepatitis improperly treated, or too far advanced in its progress before the aid of medicine is administered. Mr. Farthorne from increased tone of the animal temperature in cold climates, compared with that in hot climates, from the inordinate action



of the Liver and secretory organ in these last, or from both causes combined. There can be no doubt, that in this country Hepatitis is attended much more of the nature of simple inflammation, than the same disease does in India, and consequently, the simple antiphlogistic mode of treatment from this circumstance, will be often successful in the former, than in the latter variety of the disease.

Chronic Hepatitis in cold countries is generally slow in its progress; the Liver will be suffering for a long time under its attack, yet the slight indisposition which the patient feels, is generally attributed to the irritation of some other organ, most frequently the Stomach, excited at length from an increase of pain in the region of the Liver, and from symptoms which no longer admit a doubt, but that this organ is the seat of the disease, a treatment for Chronic Hepatitis is commenced, when in all probability it is too far advanced.

The symptoms of Chronic Hepatitis are, a constant pain below the frontal bone, drowsiness after eating, the pulse usually quick, small, and without hardness there



is a dull, but constant pain in the right Hypochondriac region, a sensation of fluttering, or palpitation at the scrobiculus cordis, lassitude and languor through the day, and inability to sleep at night, or if the patient gets to sleep, he is very frequently disturbed by alarming dreams, and awakes much distressed.

The skin is usually hot, and dry, particularly the palms of the hands, and soles of the feet; the tongue has a yellowish or white appearance; the mouth, and fauces are dry, more especially in the morning; the appetite is sometimes good, but the quantity evacuated bears no proportion to the quantity eaten; more frequently the patient complains of nausea, and the food is soon rejected after meals.

There is frequently pain in the shoulder, resembling rheumatism, sometimes seated below the acromion Scapulae, and frequently extending from thence to the inferior Costa of that bone. The bowels are generally costive, and filled with wind, and in the more advanced stages the discharges by



stool are of a light, clayey colour; and substances taken into the stomach are imperfectly digested.

Upon an examination of the right hypochondriac region, the edge of the liver will be perceived to be thickened, but extending below the edges of the ribs, and acutely painful on pressure, the abdomen is generally tense, and the complexion of the patient at this stage, is of a sallow hue, and indicating very great disarrangement of that important organ. The mind of the patient also sympathizes with the disease, he is peevish, or querulous, or dull, and languid, and exhibits all the marks of an hypochondriac.

Chronic inflammation of the liver, seldom goes on long without enlarging the structure, or enlarging its volume. If the liver, when it comes under the names of *scirrhous liver*, *enlarged liver* &c.

In the treatment of Chronic Hepatitis, the remedies are very similar to those employed in the latter stage of the Acute disease. Our first indication is to remove the torpid state of the liver, and thereby to prevent sclerosis, or disorganization.



As an internal medicine says Dr. Johnson, there is none which so steadily increases, and meliorates the hepatic secretions, as some of the mild preparations of Mercury. - A gentle, and gradual introduction of Mercury into the system, retarded by daily evacuations from the bowels, until it slightly affects the mouth, or at least the breath, and kept at that point for some time, forms in numerous cases, the most effectual method of restoring, a due and healthy action to the biliary organ.

As soon in general as a mercurial odour is perceived in the breath, the stools become yellow, and more copious, the patient experiences an exhilaration of spirits, the food is relished, and digested better, the eye and complexion soon after clear, and animation is restored to the countenance.

After keeping things in this state for some time, according to the stage of the disease, a course of opening medicines, combined with bitters and tonics, ought to be entered on, and continued for a considerable period. For this purpose the blue pill, in two, three, or four grain doses, continued



or alternated with a purgative seems to answer best, without producing much uneasiness of the bowels.

But where circumstances should render it improper to bring the system under the influence of mercury, we should then institute a course of medicines, which will at once increase the biliary secretion, clean the bowels, and improve digestion. The following combination is stated by Dr Johnson, to effect this purpose better than any other which he has tried.

N. Ext. Colyenth comp: ʒj

Sul. hydrag: grxx

Ant: Tart: ----- grij

Ol. Carui. q. s

to be made into twenty four pills - one, two, or three of which is to be taken every night. These should be regulated according to the effects produced; one, two, or three stools should be procured every day, and they should be persevered in until they produce a permanent effect on the system.

- At this period the Compound infusion of gentian,



cascailla, guajacis, columbo, may be taken three, or four times a day, with the Carb. Lommensis, or Testas, and a small quantity of any aromatic tincture, as Cardamom seeds.

The Taraxacum or Dandelion, has lately come in use, in biliary obstructions, and Dr Johnson remarks, that he has often found it beneficial. Two ounces of the fresh root, sliced, and boiled in a quart of water to 4 pints, with two drachms of the Tinct. of opels is a good form. — a mixture of this three times a day, is a moderate dose, or a scruple of the extract twice a day.

It not infrequently happens however, that the purgatives above mentioned, either from idiosyncrasy, or the caprice of the solvent, cannot be employed, in which case we must have recourse to others, but of much less efficacy. The Sulph. Magnesia, in the infusion is good, with a few grains of the Sulphate of Iron, will form a tolerably good artificial Mineral water, with which the bowels ought daily to be treated giving twice a week at least a few grains of the Blue pill to act on the secretory ducts



of the liver, or five grains of the squill, or steel pill with
with half a grain of Calomel, may be given every second, or
third night, and an infusion of Columbo, with Carbonate
of Soda, or Potash during the day.

4 pint, or half pint of the Compound Decoction of Sas-
saparilla is also highly recommended as auxiliaries to
these remedies. An imitation of the native Harrowgate
waters, formed by combining the Sulph. Magnesia, the
Sulph. tart. potash, and Sulphuric of potash is highly recom-
mended, not only as an occasional substitute for
Mercury in Chronic obstructions of the internal organs,
but also in obstinate cutaneous eruptions.

As auxiliary to these remedies, The Nitro: Murialic
acid bath has been greatly extolled. This remedy which
is now very frequently used, and as some very eminent
practitioners report, with much success is prepared
in the following manner.

"Into a glass vessel capable of holding a pint
or more of fluid, put eight ounces of water, and pour on
it four ounces of Nitric acid, and four ounces of



Muriatic acid. - This may be labelled the "Citro-Muriatic solution" and one ounce, and a half to a gallon of water, will form a bath of medium strength. The proportions may be increased to two ounces, or diminished to half an ounce, according to the age, strength, delicacy and other peculiarity of the patient.

A bath of two gallons and a half, is generally sufficient for the feet and legs. A narrow, and deep wooden bucket is best, such as will bring the water well up to the knees, without requiring more than eight, or ten quarts of liquid. The feet, and legs of the patient, ought to be immersed in this bath, at a comfortable, warm temperature, say 95 degrees, and kept there 20 minutes, or half an hour, just before going to bed. This may be done every night, or every other night, and the same bath will remain good, or three, or four nights. It ought to be kept in wooden buckets, and a fourth part, or so, warmed up every time it is used, in a well glazed earthen vessel, and this part added to the rest, which will make the whole



1; a sufficiently warm temperature; or a fourth part of the bath may be thrown away, and a fourth part of fresh hot water, with an ounce of the Nitro-Muriatic solution added, which will obviate the possibility of any decomposition taking place by glazed vessels."

It is supposed by Dr. Scott from whom this account is taken, that sponging the skin with the bath, is equally as good as immersion, and that whether hot or cold its effects are the same. The strength of the bath must be regulated by the degree of irritability to which the patient's skin is susceptible. It ought in general to cause a prickling sensation when the immersion has continued a quarter, or half an hour.

The Nitro-Muriatic Acid has also been prescribed internally, and in numerous instances with very happy effects. When used it is to be in the proportion of one drachm of the acid, to a pint of water, and the whole to be drank during the day.

The medicines used are to be assisted by diet, and regimen. In the choice of diet, the greatest



proportion should be of regulable food, of the mild, farinaceous kind; but those vegetables which are apt to ferment, and create flatulence, or disordered should be strictly avoided. The animal food should consist of Mutton or Beef, which should be well broiled, or moderately roasted and taken with its own gravy; veal and pork are to be avoided, as well as most of the white meats; all oily matters also, as they are unwholesome on the stomach, and produce a greater acidity of the gastric juice. This will necessarily exclude melted butter, every thing fried, all species of pastry, together with cold, or unbroiled vegetables; ripe fruits may be admitted in moderate quantities, rather before, than after dinner; and abstinence from spirituous, or fermented liquors is a sine qua non in the treatment of hepatic constitutions.

The minutest attention must be paid to the facts - The close sympathy which exists between the feet, and stomach, and between the stomach and liver, will point out the necessity of paying the strictest



attention to their warmth, and dryness, a circumstance of more importance as a remedial measure in these disorders than is generally imagined.

Having shown that sudden checks to perspiration and also long continued cold, and moisture are the prolific sources of hepatic complaints, it is evident that flannel next the skin, and a sufficiency of bed-clothes at night, are preventive measures of great importance; and as a superabundant perspiration renders the extreme vessels more liable to collapse suddenly, from the application of cold, it is evident that we ought to avoid that kind of exercise in the heat of the day and particularly in the sun, which so inordinately increases the cutaneous discharge. When such causes are unavoidable our next endeavour is to shew the bad consequences; — not to desert at once from exercise, and above all things to avoid a current of air, the application of wet, or drinking cold liquors.

Exercise properly regulated will in all cases very essentially contribute to restore, and strengthen the

action of the liver, but it must be adapted in its degree, and the time of using it to the circumstances of the individual; riding on horseback is well suited to the early stage of Chronic hepatitis, but after the liver has acquired an enlarged size, it is apt to be too severe.

When used, the time chosen should be between meals, and when the stomach is not oppressed with food.

But the objection which applies to riding on horseback, in some cases of the disease, as being too severe, does not apply to frictions with flannel, or a suitable brush, or to the flannel roller, or shirt; or to the exercise with the swing, they have all been very highly, and justly commended.

The modus operandi of the flannel roller or shirt, may be readily explained; - First - from the equal temperature and warmth which it gives to the abdominal viscera; and Second from the uniform degree of excitation on the surface, and uniform discharge from the perspiratory vessels of that important portion of the body.

